



(19) **United States**

(12) **Patent Application Publication**  
**Awater et al.**

(10) **Pub. No.: US 2001/0010689 A1**

(43) **Pub. Date:** **Aug. 2, 2001**

(54) **INTEROPERABILITY FOR  
BLUETOOTH/IEEE 802.11**

## Publication Classification

(76) Inventors: **Geert Arnout Awater**, Utrecht (NL);  
**Ran-Hong Yan**, Farington (GB)

(51) **Int. Cl.**<sup>7</sup> ..... **H04J 4/00; H04B 7/208**

(52) **U.S. Cl.** ..... **370/344; 370/347; 370/478**

**Correspondence Address:**  
**Docket Administrator (Room 3C-512)**  
**Lucent Technologies Inc.**  
**600 Mountain Avenue**  
**P. O. Box 636**  
**Murray Hill, NJ 07974-0636 (US)**

(57) **ABSTRACT**

The key of the invention is to introduce an interoperability device in a communication system which integrates an IEEE 802.11 transceiver and a Bluetooth transceiver. The device prevents that one transceiver is transmitting while the other is receiving, which would cause interference at the receiving transceiver. In addition, the device preferably prevents that both systems are transmitting at the same time to avoid interference at the receiving device(s). Optionally the device prohibits simultaneous reception of both transceivers. In that way the radio receiver can be shared between the devices, allowing a cheaper and smaller hardware design.

(21) Appl. No.: **09/761,074**

(22) Filed: **Jan. 16, 2001**

(30) **Foreign Application Priority Data**

Jan. 20, 2000 (EP) ..... 00300397.7

